Eye on Brain Tumors: When Vision Changes Signal Something Deeper Transcript

(Transcripts are generated by AI and may contain errors)

Podcast Introduction and Guest Welcome

So, classically, I will say when I trained, you know, years ago, something years, it was really about taking the tumor out. And the goal was, hey, we have to take the tumour out at I would say all cost.

It was almost a mindset of it. You know we had to get the patient out and the recovery is the recover and what things they go through is kind of, an afterthought.

That whole paradigm has changed really because Not only is it technology that's advancing, it's our understanding of diagnosing earlier, our understand of the nuances of treatment, like we talked about medical treatment even for tumors.

So all of that together is really designed to try to optimize outcome and get people high quality postoperatively. Welcome to the IQ Podcast. I'm Dr. Rani Banik, here to help you boost your IQ with powerful insights that connect your eyes, your brain, and your whole body wellness.

Hello and welcome to IQ podcast. In this podcast, you'll be gaining insights into your vision health, brain health and overall wellness to maintain healthy vision for life.

Today, we're going to be talking about an important and sometimes concerning topic when vision changes may be a sign of something happening in the brain.

And to discuss this, I've invited a very special guest, my colleague and friend, Dr. Raj Srivastava. Dr Sriva Stava is a neurosurgeon at Mount Sinai in New York City, and he's also a leader in care of patients with brain tumors and also complex neurologic problems.

I've had the privilege of working closely with Dr. Srivastava for over 10 years, and we've shared patients, particularly when vision symptoms intersect with neurologic disease.

Dr Srivaklava, thank you so much for joining us today on the IQ Podcast. Thank you, Rani. It's a pleasure being here. I'm a big fan not only of yours, but of this podcast too, so it's an absolute pleasure.

Oh, thank you. I'm honored that you're listening to it in the midst of your busy schedule, so I am truly grateful. Can you give us an introduction of what you do as a neurosurgeon?

And I think people have these, like, ideas of a what a neuro surgeon does, a brain surgeon. So can you kind of give maybe a day-to-day kind an overview of kind what do you in your career?

Sure, yeah. So, you know, for me, I'm a neurosurgeon who specializes in benign skull-based tumors. We call these types of tumors skull based tumors because they traditionally originate from the brain.

When we think of brain tumors, we thing about where they're originating from. Are they originated from their brain itself, which we call primary, or are they originated from outside their brains?

So as neurosurgians, all of us to the most extent are specialized So my particular specialty is benign tumors and skull-based tumors, but different surgeons would have different specialties.

My day typically involves a combination of things. So not only am I seeing new patients for consults and evaluating them in terms of treatment, but I'm also operating too.

Neurosurgeon Role and Training

And then the operating as you can imagine for us is fairly long. It's a long day and it involves multiple components. There's the planning component that we do in the morning.

there's an almost rehearsal that do which is through physiology and simulation. We have a lot of augmented reality overlay now that incorporate. And then there's the actual surgery.

And of course you're rounding on patients and treating patients. So it's a busy day. It's something that you train of, course, over the course of your residency to get used to the pace of it and the days.

But it is remarkable the depth of the patients that we see and diversity of their presentations. Yes. And could you just share how long is the training?

What is required to become a neurosurgeon? I'm sure people are curious. Well, you know, once you finish medical school, it's a seven year training. So it used to be historically that the residencies were sort of divided into a classic internship and then a neuro surgery residency.

But now it's really one combined residency. So you apply through the match and once you're in neurosurgery, it is seven years of training. Many of our residents go on to practice right after, but I would say 25 to 30% do subspecialty fellowships.

And that's becoming increasingly more common as well, just to really, I think honestly, to learn all the technology that is out there. it becomes such a specialized area, which is true not just of neurosurgery, but in medicine in general, that I think fellowships and a deeper understanding of your specific interests has become more common.

Yes, very common in ophthalmology as well. We sometimes almost get too siloed into what we're doing and it is good to kind of step back sometimes and look at the bigger picture.

Now, many people who are listening, a lot of the time people hear the word brain tumor and they fear the worst, meaning it's, I hate to say this, but a death sentence, right?

Yes. But it seems like in many of your patients, the type of tumors that you take care of, that's hardly or very rarely the case. Can you put that into perspective a little bit about what is meant by a brain tumor?

And specifically, you mentioned skull based tumors. What are the types of tumors that you treat? Yes. So I think that's a great question. I mean, when people think of brain tumors, they automatically go to the worst case scenario, which is the classic what we call glioblastoma which is a very aggressive primary brain tumor which unfortunately as you said it has really been difficult to treat.

I mean there's a lot of very I would say encouraging technology and research that's relatively recent in terms of CAR-T therapy and other things which I think for the first time in the least the course of my career have been encouraging.

But for the most part, yes, glioblastoma is definitely an aggressive type of brain tumor. That's only one type a tumor though, that's the primary brain tumors.

The vast majority of tumors are actually benign tumors and we think of them as a variety based on their presentation. So, skull-based tumors or what we call skull base originate from outside the brain.

And so, the lining of the brains is classically called meninges. Some meningiomas are common. The other common area, of course, is pituitary gland. The pitutary is the main hormone regulator of the body.

So benign tumors in this location are also very common. They're interesting too because they can secrete hormones and you can present with secretory states.

And that is something I would say that's, in my opinion, underdiagnosed in population. I think that something that, you know, technology and endocrinology has really made significant advancements for.

But that would be the other type of tumor. And then the classic other area is something we call vestibular schwannoma, which are benign tumors that have to do with hearing and balance.

Understanding Brain Tumors and Skull Base Types

So those three populations, I would say meningiomas, pituitary tumors, and acoustic tumors really make up the bulk of the type or practice that I have in the patients that see.

All of them are Benign, but you know, as you were mentioning, all can present with different types of symptoms. Well, thank you for that explanation. I want to just touch a little bit on the secretory pituitary tumors.

What types of symptoms may patients have that may give you a clue that this is some kind of a secretary pitutary tumor? Yeah, you know, I always find it fascinating because For patients, these are slow, insidious presentations.

It's not typically the case where somebody all of a sudden wakes up one morning and has symptoms. Usually, they're in the course of many years, if not decades.

So classic ones are something like acromegaly. Acromegli is a type of clinical condition in which growth hormone is over-secreted by the pituitary gland.

Growth hormone as an important hormone for all us when we're young and developing in terms of bone growth and organ development. But if it continues well into adulthood, It used to classically be called gigantism, but it's really just increased in soft tissues, muscle growth, bone growth.

And in its worst cases can actually cause cardiovascular morbidity. So a typical patient would notice when you talk to them that over the course of the last maybe five, 10 years, they've noticed increased shoe size, hand size glove size.

Many people associate it with weight gain, but it's actually more structural than that. And it is only when they kind of reflect on it that they start to notice, yeah, you know what?

My picture album looks different, my face has changed, and my bony structure has also changed. So that's one example. The more difficult one to diagnose is Cushing's disease.

Cushings disease is an oversecretion of cortisol, which is the main body steroid. That one's more challenging because the way it presents can be the ways many people experience weight gain, hypertension, diabetes, etc.

So oftentimes it takes a while for patients to come to that diagnosis and it's only when someone really does this specific type of blood test where they look for elevated cortisol, you know, do you really diagnose it?

I'll even add one thing that sometimes even that is not enough. Sometimes you need more further testing to really diagnose it in detail. And that's what endocrinologists do.

You know, they do a fantastic job of… And I oftentimes tell my residents, some of these patients who have these types of secretory brain tumors, you can actually see them in the waiting room and diagnose them.

I've definitely seen patients with acromegaly, the growth hormone secreting tumor result and seeing their facial structure. There's a certain appearance that these patients have and their hands are very, very large.

I mean, it's something that you can suspect by, as you said, looking at a fat scan, a family album tomography, right? So just looking back at your pictures or through your phone now, we probably need to have a new name for that, these days.

Yeah, that's right. Yeah, and one other thing I wanted to ask you, you know, there's a particular type of pituitary tumor that I often see, which is a prolactinoma.

Can you explain a little bit about what the symptoms from that may be? Sure. So prolactin was probably the most common secretory tumor. And again, another interesting presentation.

Typically, for women, women would notice an absence of their menstrual cycle. Prolactine is a normal hormone that's produced after pregnancy and it helps stimulate milk production from the breast.

It does disrupt, of course, your normal ovulation cycle, so an absense of a natural menstruation cycle would be typical for woman. For women, it's usually diagnosed early because typically if someone notices they've not been having their period, they would let their primary doctor know or potentially their OB-GYN know, and they order blood testing for prolactin.

Elevated prolacting can be common in normal tumors, so we often tell our residents that you really have to look for really elevated beyond what we would call normal physiologic levels to diagnose a true prolactive secreting tumor.

You know, for men, it's more complicated because obviously men don't have a menstrual cycle. They won't notice these hormonal changes. Sometimes they notice decreased libido, sometimes they would have fatigue, but these are more common symptoms that could have variety of reasons.

So classically for man, they wouldn't really present when the tumor is larger.

Pituitary Tumor Symptoms and Hormone Effects

and they would start to develop other symptoms, potentially headaches and visual symptoms. So the good thing with prolactinomas, it's the one tumor type that can be treated medically because of the fact they respond so well to dopamine agonist therapy.

They're that one type of tumor that doesn't need surgical treatment and can very nicely respond to medical treatment. And we see dramatic reduction, not only in tumor size, resolution symptoms and obviously decrease in prolactic levels.

That identification has been very, very effective for many patients. Absolutely. And one other very interesting symptom of prolactinoma, sometimes it can cause the lacturia, which is discharge from the nipples.

Yes. Sometimes, you know, women who are not breastfeeding may notice a discharge, and that should be a warning sign as well. and sometimes men can have it as, well isn't that correct Dr.

Shubhastava? That's right, that's correct. And you can imagine for men, it's not only a scary symptom, but I think for a lot of them, there is this sense of almost they feel embarrassed by it.

So they often don't approach a doctor for their symptoms because they think something is unusual or wrong. It's something that, at least I've seen in my practice, has been a long delay in getting to treatment and diagnosis.

Yes, absolutely. So I know that there are certain symptoms that people don't like to talk about, but if you've had any of these symptoms, definitely bring it up with your primary care doctor and get a workup and you think that's the best thing to do.

Hello, I'm Dr. Rani and I am here to talk about something we often take for granted, our vision. In my book, Beyond Carrots, Best Foods for Eye Health A-Z, i delve into how crucial it is to be proactive about your vision health.

Certain eye issues are quite common, such as dry eye and eye strain, while others frequently develop with age like cataracts, macular degeneration, diabetic retinopathy, and glaucoma.

Some of these types of eye conditions can be debilitating and even lead to loss of vision. The good news is that many of the sight-stealing conditions are preventable if you take the right steps.

Your eyes are precious and they deserve the best care possible. To ensure healthy vision for life, you need to provide your eyes with the proper nutrition they need.

Nutrients like lutein, zeaxanthin and bioflavonoids, also omega fatty acids, are like fuel for your eye, keeping them strong and vibrant. But here's the truth, sometimes our diets have gaps.

That's where my Agile Size supplement bundle comes in. It's a result of years of research and my passion for eye health. The Agiles Size bundle contains the three essential supplements I recommend to my patients.

Let's start with Fortify, a blend of powerful ingredients that protect against stressors like blue and UV light, eye strain, free radicals, and oxidative stress.

Next is Nourish, a complete multivitamin. Noursh provides the foundational building blocks your eyes need for cellular function and repair, along with powerful bioflavonoids that support the delicate structures within your eye.

And then there's Soothe, an unique complete blend of omegas 3, 6, 7 and 9. This blend supports a healthy inflammatory response, nourishes dry eye and helps fight against macular degeneration.

Remember, taking care of your eyes isn't just about today, it's an investment in your future. By being proactive now, you can enjoy healthy vision for years to come, so you continue reading, using a device, staying independent, and seeing the faces of loved ones.

So, join me in taking the first step towards a lifetime of clear, vibrant vision. It's time to introduce your eye to the Ageless Eyes Bundle. I invite you to learn more on my website about each of the powerful supplements that make up the trio in the Ageless Eyes Bundle.

Let's embark on this journey together because your eyes deserve nothing but the best. The Agless Eyes bundle. See the world with clarity and confidence.

Now, Dr. Srivastava, over the years, we've shared many, many patients who come in because they have vision problems and ultimately they're diagnosed with one of these brain tumors, skull-based brain tumor.

Which types of tumors have you seen in your practice are most likely to cause vision issues and why? Yes. So, absolutely. For us, for at least a variety of the patients that we just talked about, the benign brain tumors, pituitary tumors are classically the ones that present with visual symptoms.

If you think about where the pitutary gland is located, it's located just underneath the optic nerve in an area where two nerves come together, which we call the chiasm.

The interesting thing or the fascinating thing about the brain is that it's always processing vision from both eyes and it is creating really the perception of unified vision which is in itself a fascinating topic in terms of how vision is processed by the brains.

So one can imagine that if you have a pituitary tumor and its large which they classically are what we call those macro adenomas, they can compress vision.

It's a structural compression of the nerve itself and depending what aspect of the nerve is compressed can give you different visual symptoms. So the classic presentation for us is a patient who doesn't necessarily have endocrine abnormalities, but would have progressive visual changes and headaches.

that they've noticed sort of slowly over the course of maybe months or even years until it becomes more dramatic or before it's picked up. So it is really the location, you know, the joke we use in neurosurgery is like it New York

City real estate, location location.

Absolutely, yeah. And one other thing many patients may notice with this type of vision loss is that it's side vision or peripheral vision. So they may not notice this for many years because slowly their peripheral visions is being degraded and everything's kind of closing in.

Vision Loss, Smell Changes, and When to Seek Help

And it is not until it gets advanced and they start bumping into objects, bump into walls, for example, or people on the street that they main notice that something is wrong.

Again, a lot of these types of tumors are slow growing, very indolent, takes years or even decades sometimes. Isn't that right, Dr. Shuvastava? Absolutely.

And, you know, it's, funny, cause when you talk to patients, the classic thing they'll always say is, You know what? That makes a lot of sense because I've noticed over the last few years, I'd been bumping into things, driving's become more difficult.

I feel a little less confident when I'm biking or doing other things that require your use of peripheral vision. Or they just noticed their visions off.

Like they can't really describe it, but they feel like they don't have the full perception of vision and, in a busy life where all of us are working and doing things.

It doesn't necessarily come. to the forefront of your concern, understandably. And it's really when you diagnose it and actually examine it that people then reflect back and say, yeah, this has been a longstanding for me.

Yeah. Another symptom that I've often, I shouldn't say often because it is not that common, that patients may have is loss of smell. Yes. That ultimately leads to a diagnosis of a brain tumor.

Can you talk a little bit about that and what types of brain tumors may cause something like that? So I think there's so much interest with loss of smell because of COVID.

As you can imagine, you know, during the COVID pandemic, one of the classic things with COVID infection was this loss sense of smells and prolonged, really, I would say, inability to smell.

That's been so common. I will tell you, Ronnie, that so many patients come in and like, what does that mean for me? What does it mean? Is that a symptom of my tumor?

So the way a tumor can change your sense or smell, again, is the location of where the tumor is. So olfaction, which is the perception of smell, you know, is classically through our nose and all of us on the inside lining of our nostril have very fine sensory receptors.

All these receptors go from the nose into the skull, through the skill based between your eyes. And our skull has, all over our sculls have small little openings for which these small, little rootlets, actually the root lets come in.

So a tumor in this location can definitely affect smell. It's interesting too, because again, going back to subtle symptoms, smell itself may not be the first thing people notice unless your job depends on it.

If you're a sommelier or someone for whom smell is your livelihood, one can imagine that it's not something you pick up right away. When a tumor lives in this location, It's the sense of smell that gets affected, but oftentimes, really, it's secondary features that patients notice that brings them to a doctor, which would be headaches or, like we were just saying, visual changes when they get larger.

But absolutely, sense or smell can be a classic early presentation. Yes, and I can actually recall a patient that we

share, Dr. Srivastava, who had loss of smell for probably 10, 15 years.

And he just thought it was his sinuses. He just though he had bad sinus disease and he didn't really think much about it. It wasn't until he started to have headaches and his vision was affected that he was ultimately scanned and then diagnosed with having a brain tumor.

Now, related to that, if someone's listening to this podcast and they start to think, oh, maybe I have some of these symptoms. What should I do? What would you advise?

You know, what's the next best course of action? Should they immediately go make an appointment with a neurosurgeon or whom should they see? Yeah, that's a great question.

And I think it's interesting to me because all of us, the first thing we do is we tend to Google it, right? We will go online. We're having symptoms, we're concerned.

And depending on how you search and depending in the kind of prompt question you ask, all of a sudden you could be told you have a brain tumor. And I think the message that I'd like to kind emphasize is that even though these are common, certainly in my practice, in a general population, these types of tumors are uncommon.

I always tell patients that, even if you haven't benign tumor, it often means you don't need to even have treatment. Many times these were small tumors.

that can be conservatively followed the vast majority of the patients I see in my practice are benign tumors which we follow and easily surveillance over years.

So I think the important thing is if you're noticing something to start first either with your primary doctor and discuss symptoms or an ophthalmologist if it's specific to vision and eye related symptoms.

Hopefully people are getting yearly eye exams and checkups and so forth and that's something you can discuss with you opthalmologists as well. But I think it's important that I want to emphasize that really the incidence is low and the anxiety level is high, understandably when somebody talks about a brain tumor.

But the important thing is to see someone and discuss your symptoms. And I tell all of our patients, Be careful of just continuously Googling and doing things because you can fall down a rabbit hole where before you know it, you've given yourself these very severe diagnoses, which in reality were never the case.

Yes, I've definitely had patients who become very anxious. They develop health anxiety because of their symptoms and what Dr. Google or now Dr Chat GPT has told them.

But one thing I'll say is I have had patient who have some of these types of symptoms, headaches, vision issues, maybe dizziness, imbalance. and they're concerned.

And in some patients, even though their exams may not show any focal signs, sometimes there is value to just getting a scan. If it's anything to alleviate the patient's anxiety and concern over this, what are your thoughts about that, getting just routine scans?

I know people are now getting whole body MRIs or whole-body CAT scans. What are you thoughts on that? Now, I think we have to be a little bit careful.

And the reason I say that is my personal bias is that we live in a world where there's information everywhere. But the information coming to patients, and Ian, that I'm talking about, even very sophisticated, educated patients is unfiltered, right?

It's coming through a variety of sources. Majority of these clinical presentations don't really match what you're going through. and they introduce, i believe, a lot of anxiety to our modern life because now all of a sudden you're given

all this information, it's out of context often.

It may not be ethical context. And you know, as you and I know in our practice, so many things are, what's the context of the symptoms or what does this really mean?

So I'm a little bit hesitant. I like the idea of being an advocate for your health. The idea is educating yourself, understanding, learning about illness and disease.

That's a great thing for all us to have better understanding. but I'm a little bit concerned with getting a lot of studies without being directed towards them because the one issue I have and I know this even in my own personal life is that once you get something you're kind of driven to go to the next step and the interventions start to escalate.

So what starts off as a blood test becomes a scan, scan may become a biopsy, et cetera. I think it's all appropriate, but it should be through guidance and through somebody talking to you rather than just getting a full body MRI.

Like the idea of advocacy and understanding, I'm a little bit cautious about just giving a lot of unfiltered information. Yeah, and I'll share the story of one of my colleagues in ophthalmology who happened to get one these whole body scans.

And incidentally, there was a little tiny bony tumor in her eye socket. Being an opthalmologist, of course, she was very, very concerned, but it turned out to be really very benign and nothing to worry about.

So I think caution is really important in choosing some of these tests and also then getting the right providers.

Modern Brain Surgery and Recovery

If there is something incidental found on the test, to really interpret it and not to go down that rabbit hole of, oh my goodness, what is this going to mean for me, and so forth.

Dr. Srivastava, in our last few minutes together, I wanted to kind of talk about the other end of the spectrum. So we've been talking a lot about symptoms and diagnosis, et cetera.

What about, let's say somebody's been diagnosed with a brain tumor, they've had surgery, what can one expect in this recovery period after having brain surgery?

I mean, how can it affect one's life? Can they get back to normal function? Give me just give us an overview of that. Sure, you know, one of the remarkable things about how we have neurosurgeries advanced over, I would say, the last few decades has really been the focus on doing surgery as minimally, invasively as possible.

So a classic approach for a pituitary tumor, something we call endoscopic transphenoidal, which essentially means doing the surgery through the nose, through using both nostrils to get to the tumor.

The concept over arching, all of this, is how can we get patients back to a high quality of life after their surgery? So the goals are try to do the surgery as minimally as possible, though, of course, maximally effective.

How do you disrupt the least amount of neurologic tissue? And how can you emphasize recovery for patients that gets them back to their quality of life?

So classically, I will say when I trained years ago. something years ago, it was really about taking the tumor out. And the goal was, hey, we have to take the tumour out at, I would say, all cost.

It was almost a mindset of it, you know, that we had to get the patient out and the recovery is the recover and what things they go through is kind of an afterthought.

That whole paradigm has changed really because not only is it technology that's advancing, but it's our

understanding of diagnosing earlier, our understand of the nuances of treatment.

like we talked about medical treatment, even for tumors. So all of that together is really designed to try to optimize outcome and get people high quality post-operatively.

Our typical postoperative patient is only in the hospital one or two days, which I know a lot of patients find surprising because you think, hey, I've had a brain tumor, or I had surgery.

How come I'm going home in one or two days? And it's because of the fact that nowadays we can do the surgery and perform the surgeries in ways where people actually recover quickly.

So it is not just surgeries, the anesthetic profile that's used. It's everything that classically would keep patients in the hospital that are improved around it.

So the average patient hopefully does well and is feeling well post-op day one. The other good thing I tell patients, which is a lucky thing about brain surgeries, brain surgery or anything related to brain is really not painful surgery.

It's not getting your shoulder done or your knee or hip done where you're on large amounts of opioids or pain medicine. Our average patients is usually on anti-inflammatory like an Advil or a Tylenol.

Pain is not an issue. We want people to get back to walking and going back their lifestyle. And our recovery now, honestly, for most patients is about a week to 10 days.

It's dramatically better than it was when I was training because the focus and the discussion and everything is on How can we be as minimal as possible?

And I think, you know, certainly I've seen for myself on the types of approaches and surgeries we did when I trained, we almost never do anymore because of all the endoscopic technology that we have now.

Well, thank you for all that reassurance, Dr. Shevastava. I do remember when I was training as well, it was a different type of recovery that these patients had to go through.

And now I think our focus has shifted more towards how can we continue to support this patient's quality of life, like the best quality life and maintain function and just overall, you know, just support the patient in all aspects.

The same also goes for eye surgeries. You know, back in the day when people had cataract surgery, probably 50, 60 years ago, they had to be with sandbags on their eyes for two weeks.

And nowadays people have catarax surgery and they're back to work the next day. So it's really remarkable the way our science has evolved in surgical techniques.

Well, Dr. Shimostava, this has been such an insightful conversation, so informative, and you've given us so much reassurance with compassion. I truly appreciate your words of support and advice for our audience.

If you have any last thoughts or pieces of advice you'd like to leave them with, what would that be? I think, you know, I wanna go back to what I was saying before is that, we're fortunate to live in an age of so much information all literally at our fingertips.

I the important thing is not to get overwhelmed by it, to seek out your primary doctor or a specialist doctor to help you interpret and understand symptoms.

Many of the times these things are not concerning and they can help guide you and get you to a place where you understand before you get stuck in you know, like we talked about a rabbit hole.

So I think that's the benefit of the technology that we have and helping somebody guide you is important. That's

how I want to kind of my final soapbox.

Thank you. And to everyone listening, please, you know, if you have any concerns, pull together your care team. You know it's usually multiple members of your Care Team.

So whether it is your primary doctor, endocrinologist, neurosurgeon, ophthalmologist or neuro-optimologist. Bring everyone together. That's really the best way to approach these types of issues.

Again, Dr. Shivastava, we truly appreciate it. I know you have a very busy schedule, so we appreciate spending this half hour with us. And for all of you, uh, We appreciate you as well for listening and tuning in.

Remember to subscribe and leave us a review and share the podcast with your family and friends. Thank you again. Thank you for tuning in to the IQ Podcast.

I hope you enjoyed today's episode and learned something new to help you boost your IQ. Leave us a review and share the podcast with your family and friends.

Stay connected with me for more eye-opening insights on eye health, nutrition, and lifestyle. Until next time, keep your vision clear and your iQ sharp.